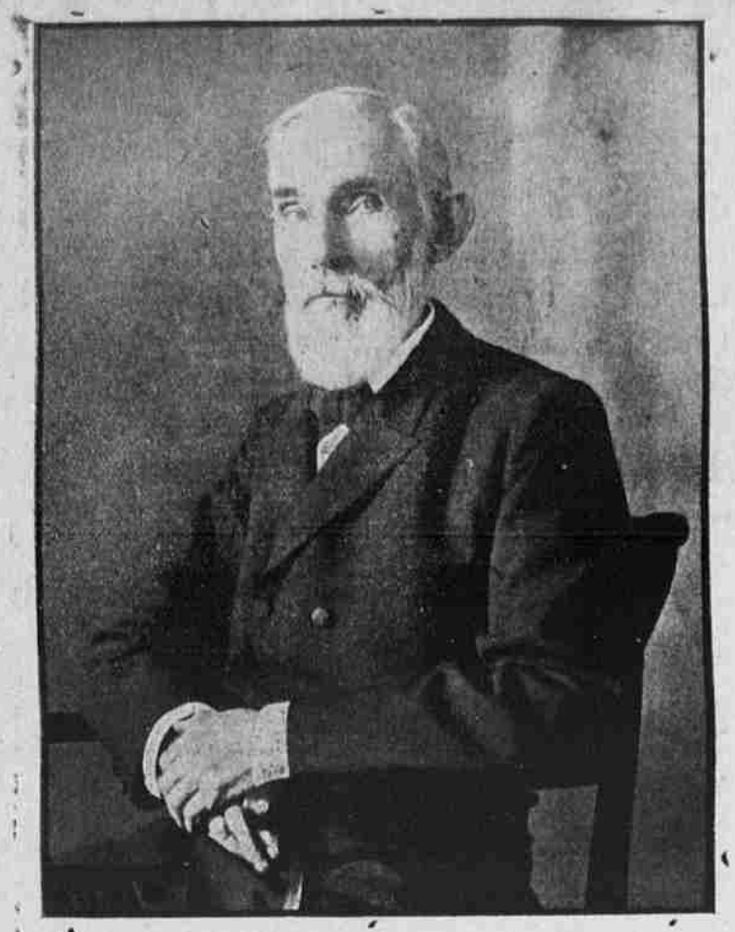
REV. HIRAM BINGHAM DIES IN BALTIMORE HOSPITAL



THE LATE REVEREND DR. HIRAM BINGHAM.

When the San Francisco newspapers arrived on the Siberia yesterday Honolulu was confronted with the news of the death of the Rev. Hiram Bingham, the aged missionary of Honolulu, known to the Christian world as the great missionary to the Gilbert Islands. The dispatch was dated Baltimore, October 26, and stated that Dr. Bingham died from an operation at the Johns Hopkins hospital. No previous intimation had been received here of his death and even at the Hawaiian Board of Missions, the officers were loth to believe the report to be true.

Theodore Richards said he had read the report but inasmuch as no cablegram had been received of such an important event in Christian circles, he could not say whether it might be true or not. He stated that he had received a postal dated October 22, from Dr. Bingham, in which the writer stated he would be operated on the following day. The dispatch reads:

BALTIMORE, October 26.—Rev. Dr. Hiram Bingham, the noted Congregational missionary, who underwent a surgical operation at Johns Hopkins hospital last week, died there yesterday. Dr. Bingham was born in Honolulu in 1831, to which place his parents had gone from America in 1820 as pioneer missionaries. In 1856 he went to the Gilbert Islands as a missionary.

Hiram Bingham was born in Honolulu August 16, 1831, his parents being pioneer missionaries to the Hawaiian Islands. Three years after his graduation from Yale in 1853 he was married to Miss Minerva C. Brewster of Northampton, Massachusetts, and the young couple took passage almost immediately on the first Morning Star for the Gilbert Islands. The group lies nearly on the equator, where the mercury never drops below 76. Thei house, 24x16, received the significant name of Happy Home. Their food was almost as meager as John the Baptist's, consisting of fish, cocoanuts and pandanus fruit. Once a year the Morning Star brought other supplies, but her most precious cargo was the mail-bag.

"It was pretty hard," said Dr. Bingham, in an autobiographical sketch, "to have our first mail appropriated by the natives, who thought it was some kind of new food. As we visited their huts, we found fragments of letters, which we purchased with a fish-hook or some trifle equally dear to the savage heart, either hopelessly mutilated or lost."

There in the tropics, the only white man on the island, amid uncongenial surroundings, he began to "do something." At his ordination his father said to him: "Make yourself master of their language. . . Translate and publish the Scriptures." The difficulties were stupendous. The climate was enervating, his eyesight poor, and after a few years he was compelled by ill-health to remove to Honolulu. But, encouraged by his wife, who was a fine linguist, he entered upon the task of actually making a language.

He had to collect his own vocabulary and construct his own grammar. This achievement has not been paralleled since John Eliot prepared his Bible for the Indians. Some ludicrous mistakes occurred, as in trying to find a Gilbertese equivalent for "prayer." The word used meant "to practise incantations," precisely what they were expected not to do! At length, in the summer of 1873, they sailed with glad hearts back to Apaiang, taking with them the New Testament in the native tongue. Before leaving there was a congratulatory gathering at their home in Honolulu at which the King was present.

Ten years later, at the instigation of Mrs. Bingham, the second task of translating the Old Testament, was begun, and Dr. Bingham, then a man nearly fifty years old, undertook the task. The translation must be made from the Hebrew, which he had neglected for twenty-five years, having given his whole attention to Gilbertese, Hawaiian and Greek. The examination of the Hebrew points was most trying for his weak eyes. But under the inspiration of his wife's words, backed by the wish of the Hawaiian Board of Missions, he took his old Hebrew grammar from the shelf and buckled down to hard study.

On his fifty-second birthday he was ready to begin translation. When about half through, a visitor brought him a copy of the Revision of 1881. This was an immense help, and gave him new courage. Then followed an illness of five months, but nothing could quench his dauntless zeal. With the help of a native amanuensis, and obedience to his physician's restrictions of "no letter writing, no visiting, not much talking or walking, but much lying down," he resumed translation, sometimes on the bed, sometimes at a table. His health steadily improved, his eyesight grew stronger. Then with buoyant hope and increased courage he entered upon the home stretch.

One morning in the spring of 1893, after an absence of nearly thirty years from the United States, he and his wife, with a small group of friends, stood in the Bible House in New York, watching the last verse of Revelation being put into type. A proof was taken and Dr. Bingham read the words aloud in Gilbertese, his voice trembling with emotion. The little company adjourned to the big press room, the type was placed in form, the wheels revolved, and the last page of the first Bible in Gilbertese was printed. A prayer of thanksgiving and the singing of the Doxology followed. Booming of cannon, music, oratory, banners, and flowers often accompany the launching of a battleship or the opening of a new canal. Yet conquest of material forces sinks into insignificance in comparison with the victory of a faith which lifts a race from barbarism to the level of civilized human beings.

His latest literary effort has been the preparation of a Gilbertese dictionary. This work was made ready for publication, and the manuscript loaned to an Englishman, through whose carelessness it was irretrievably lost. But like Carlyle, after the manuscript of the first volume of his "French Revolution" was burned by an ignorant serving-maid, Dr. Bingham began the work over again.

It took him ten years, and the monumental task was only just completed. So far as known, he was the only man who has reduced a language to writing, translated the whole Bible into that language, and supervised the printing of the volume. He had supplied other means of education and Christian culture by preparing this dictionary, hyme-books, and miscellaneous literature. He suffered from repeated illness, due to a tropical climate and lack of nourishing food. Once he was so weak that he was carried on a litter on board the Morning Star, on which there was a cow, whose milk was the means of saving his life.

When asked if long periods of isolation from his fellow men was not the chief trial in his missionary career, he answered: "That twenty-seven years between two of my three furloughs was a pretty long stretch. But, after all, my greatest trial has been in seeing some of the native converts lapse from the faith. Tropical character is apt to have a slim foundation of ethics. You know people there will lie."

Visitors to the Gilbert Islands today listen skeptically to stories of their former savage condition and the danger to life which beset travelers in earlier times. It is a safe place now, because this modest, scholarly servant of Christ and his devoted wife counted not their lives dear, but gave them unreservedly to those degraded heathen. Scholars all over the world recognize the magnitude of their service to humanity. Prof. Edward C. Moore of Harvard said recently—thus indorsing Professor Thayer's earlier estimate of Dr. Bingham as a man who has "done something": "When I think of what he has done during these fifty years in the Gilbert Islands, anything that the rest of us do appears too small to mention. I seem struck dumb in his presence."

Dr. Bingham was ill before he left Honolulu for the mainland. He went East to correct proof on his new Gilbertese dictionary, and he therefore died on duty.

P. C. Jones said yesterday that it was astonishing that Honolulu was not notified of Dr. Bingham's death, and yet he is satisfied that the published statement is correct. He heard Dr. Bingham make an address two weeks ago Sunday in Dr. Simpson's church in New York. Mr. Jones says that Dr. Bingham was ill of pneumonia in the East and when Mr. Jones was in New York, Dr. Bingham was in an outlying town. He was then removed to the city and placed in a hospital.

Dr. Bingham married Minerva Clarissa Brewster of Northampton, Mass., on November 18, 1856. She died in Honolulu a few years ago. Their son, Hiram Bingham III., is a professor in Harvard University. Dr. Bingham's sister, Mrs. Lydia Coan, has been his constant companion for years and has assisted him in his work. Mrs. Coan accompanied her brother on this, his last, trip to the mainland.

THE COLLEGE OF HAWAII ENGINEERING COURSES

One of the noteworthy features of higher education in the United States is the prevalence in the curriculum of subjects relating to the practical affairs of life. Formerly chemistry and physics were taught as pure sciences, now they are often taught from the standpoint of their bearing on practical affairs. Likewise, mathematics and mechanics are now taught with reference to the man's activities upon which they have a direct bearing. These points of view are gradually bringing about a change in our estimates of the value of subjects; namely, that any subject that has a bearing on the affairs of life has educational value when taught with a view point of intellectual training. This conception is at the foundation of our best technical colleges and of the technical courses in the state universities.

The college of Hawaii is offering courses in engineering that are designed to give a thorough training in the fundamental principles upon which professional engineering practise is based and to illustrate the application of these principles by the solution of many practical problems. In general, the courses of instruction are laid out on university lines and the work required will be of equal grade. Young men entering these courses are expected to be well grounded in the physical sciences, and in mathematics up to, and including solid geometry and plain trigonometry, and it is desired to impress upon them the necessity of thorough preparation in order that the more serious work of mastering technical subjects may not be hampered by lack of proper ground work. Realizing the value of general culture to the successful engineer, liberal provision has been made for the humanities with a view to their influences upon the students' future professional practise. It is the aim of the department of engineering to fit its graduates to assume those administrative responsibilities which are more and more devolving upon men of technical training.

Mechanical Engineering.

The course in mechanical engineering is planned to afford a systematic and thorough training in general engineering, covering in addition to the more purely mechanical subjects, exercises in electrical measurements and testing, in chemical technology, in hydraulics, in sugar engineering and in the engineering of power plants. This is intended to afford an insight into actual industrial and engineering practise, and to this end the correllated training of the faculties is assured by courses in the laboratory, the workshop and the drafting-room. Many engineering graduates begin their professional life in a drafting office and to fit them for this work the training in mechanical drawing emphasizes accuracy, speed, order and neatness. Instruction in the shops and laboratories gives familiarity with materials and mechanisms, skill in handling tools and appliances, an understanding of the practical possibilities of machinery and processes, and an acquaintance with shop and laboratory limitations affecting the principles of design and manufacture.

Electrical Engineering.

The course in electrical engineering is intended to give the training required by men who wish to enter professionally upon the applications of electricity to the useful arts, and is designed to give special preparation to any who may be concerned with its commercial aspects including electric railways, telephones, electric lighting, electro-metallurgy, and the generation, transmission, and utilization of electric power. The large amount of laboratory work required aims to educate the student in accurate observation, proper order and form in recording observations, the drawing of correct inferences and the setting forth of his work in concise English, and also to impart such knowledge of electrical engineering as will fit him to enter any of its branches. Sufficient practise is given in the handling of dynamos and electrical machinery and instruments as will enable the student to carry out independently any tests or measurements apt to occur in practise. The importance of details is impressed upon him by the solution of numerous practical problems in constructive engineering and designing, working drawings being required where necessary.

Civil Engineering.

The course in civil engineering recognizes at once this branch of engineering as the oldest and broadest of the engineering professions comprising as it does, municipal engineering with its problems of water supply, sewage disposal and highway construction; hydraulic engineering with its questions of irrigation and water-power development; structural engineering, dealing with the design of bridges, steel and concrete buildings, roofs, foundations and retaining walls; and transportation engineering, including the building of railways, canals, docks and tunnels. This wide range of subjects cannot be covered in detail in a four-year course, hence the students' attention is concentrated upon the comparatively few principles underlying all branches of the profession, and he is given every facility for mastering them, by continuous drill in the class-room and by actual practise in the field, the drafting rooms and the laboratory. He is taught that knowledge, when not accompanied by the ability to use it, is of small value, while accuracy and neatness in drawings and computations are an invaluable aid. The details and cost of construction are dwelt upon sufficinetly to impress the student with their importance in the problems of design with special regard to theory and economy.

As will be seen by the following outlines the courses in all three branches of engineering are parallel through the first two years, while the mechanical and electrical engineering courses differ only in the fourth year. The divergence of the course in civil engineering from the other branches begins at the close of the second year and continues throughout the last two years.

First Year Engineers.

1st Semester.	Credits.
English	4
German or French	3
Rhetoricals	1
Rev. Alg. Geom. Trig	5
Chemistry	3
Drawing	3
Pattern making	2
Hrs. Reqd.	23
2nd Semester.	Credits.
English	4
German or French	3
Rhetoricals	1
Analytic Geom.	5
Chemistry	3
Drawing	3
Foundry and Forge	2
Hrs. Reqd.	23

Second Year Engineers.

1st Semester.	Credits.
English	3
German or French	3
Physics (general)	3
Calculus (Differ)	3
Chemistry	2
Surveying	3
Drawing	3
Machine shop	2
2nd Semester.	Credits.
English	3
German or French	3
Physics (Eng.)	3
Calculus	4
Surveying	3
Drawing and Des. Geom.	4
Machine shop	2

Third Year Mechanical and Electrical Engineers.

1st Semester.	Credits.
Mechanics (Elementary)	4
Materials	3
Kinematics	4
Chemistry (Engineering)	3
Steam Machinery	4
Mechanical Lab	2
Hrs. Reqd.	20
2nd Semester.	Credits.
Mechanical (Analytic)	5
Materials and Metallurgy	3
Machine Design	4
Physics Laboratory	3
Electrical Machinery	4
Mechanical Lab	2
Hrs. Reqd.	21

Fourth Year Mechanical Engineers.

1st Semester.	Credits.
Thermodynamics	5
Steam Engine Design	3
Dynamo laboratory	2
Engineering Lab.	2
Hyuraulics	3
Engineering and Sugar Plants	3
Electives	3
Hrs. Reqd.	21
2nd Semester.	Credits.
Steam, Gas and Oil Engines	5
Steam Plant Design	3
Engineering economics	3
Power Plant Testing	2
Specifications and Contracts	2
Electives	5
Hrs. Reqd.	20

Fourth Year Electrical Engineers.

1st Semester.	Credits.
Thermodynamics	5
Electrical Machinery Design	3
Dynamo Lab.	4
Hydraulics	3
Electives	5
Hrs. Reqd.	20
2nd Semester.	Credits.
Steam, Gas and Oil Engines	5
Electric Power Plant Design	3
Engineering Economics	3
Electro. Chem. and Met.	3
H. T. Testing and trns.	3
Electives	3
Hrs. Reqd.	20

Third Year Civil Engineers.

1st Semester.	Credits.
Mechanics (elem.)	4
Materials	3
Geology	3
Structural Design	3
Surveying	3
Drawing	4
Hrs. Reqd.	20
2nd Semester.	Credits.
Mechanics (Analytical)	5
Materials and Metallurgy	3
Astronomy	3
Bridge Design	3
Surveying	3
Drawing	4
Hrs. Reqd.	21

Fourth Year Civil Engineers.

1st Semester.	Credits.
Hydraulics	5
Sanitary Eng.	3
Surveying	3
Engineering Lab.	3
Forestry	3
Electives	3
Hrs. Reqd.	20
2nd Semester.	Credits.
Irrigation Eng.	5
Municipal Eng.	3
Roads and Highways	3
Concrete and Masonry Structues	3
Water Supply	3
Electives	3
Hrs. Reqd.	20

THE PACIFIC MAIL FACES A FAILURE WITHOUT SUBSIDY

San Francisco Examiner, October 27—Put out of commission, as effectually as if captured and held as prizes by a hostile navy, the merchantmen and liners of the Pacific Mail Steamship Company's fleet soon may find their trade gone and be condemned to ride idly at anchor, gathering seaweed in the harbor of Hongkong or accumulating barnacles in the bay of San Francisco. This is inevitable unless Congress comes to a realization that an American merchant marine can not be maintained on the Pacific Ocean without a subsidy, such as is voted by the governments of Great Britain, Germany, France, Canada and Japan.

Caught Between Grindstones.

The Interstate Commerce Commission's new ruling, requiring transcontinental railroads to publish their proportionate rates on transpacific freight as well as their transcontinental rates for similar freight, will go into effect on November 1. The executive officers of the Pacific Mail assert that after that date their freight business will be crushed between the upper and nether grindstones of competition with subsidized rivals from foreign countries and prohibition at home against any further making of through tariffs, in conjunction with American railroads.

Has Nine Large Vessels.

Nine large vessels comprise the Pacific Mail Steamship Company's fleet. They, with their net tonnage, are:

Manchuria	8750 tons
Mongolia	8750 tons
Siberia	5655 tons
Korea	5651 tons
China	3186 tons
Algoa	4897 tons
Asia	2936 tons
Persia	2744 tons
Aztec	2298 tons

Of these, the big freighter Algoa is laid up for lack of business, the smaller freighter Aztec has been taken off the coastwise trade to Central and South America for the same reason, while the Asia temporarily has been taken off the transpacific run and is laid up at Hongkong subject to call. The other ships are still in commission, carrying passengers and freight to and from the Orient, and of late have been coming into port here with large cargoes billed to interior cities of the United States on the through rates that can not prevail after November 1.

Will Continue Schedule.

When asked what the company will do with its ships after that date, R. P. Schwerin, its vice president and general manager, replied with a laugh:

"Anchor them out in the stream with the Oceanic Company's."

When asked whether he meant that literally, Mr. Schwerin explained that he used that as a figure of speech and that he hoped such a contingency would not arise, though he did not deny that time might bring about such a state of affairs unless some remedy for existing conditions can be found.

"We will continue on our schedule, and if the business is there we will handle it and fight for it," explained Mr. Schwerin. "If the freight is not to be had—if the ships go out empty—it then will be up to the board of directors to decide what course they will pursue."

Rivals Liberally Subsidized.

That the Pacific Mail Steamship Company's two principal rivals on the Pacific ocean, the Canadian Pacific Steamship Company and the Toyo Kisen Kaisha Company, are subsidized liberally by their respective governments has been known for some time, and by virtue of their subsidies they have cut deeply into the Pacific Mail's business.

By arranging with the great transcontinental railroads of this country a working basis for carrying transpacific freight either way on through rates, the Pacific Mail has been able to compete for some share of the business.

A factor in this arrangement was that the initial shipper made the rate for both land and sea. On business going to the Orient the railroad made the rate and got the lion's share, according to the understanding of shippers. On business coming from the Orient the Pacific Mail Company made the through rate, of which it got a remunerative portion.

This arrangement, it is said, worked satisfactorily until the Interstate Commerce Commission insisted upon knowing exactly what proportionate parts of these rates the transcontinental railroads were getting, and how their share of such transpacific rates compared with their domestic rates for carrying the same kind of freight the same distance on the same rails between points in the United States.

"The public at large has no idea of the amount of freight that goes from this country to the Orient by way of the Atlantic ocean and Suez canal," said Mr. Schwerin yesterday. "We always have been in competition with the Suez route, and practically all the freight going by that route is carried in foreign bottoms—mostly German and British vessels—and they all are subsidized.

"Owing to their subsidies they are able to allow the railroads bringing them freight from points in the interior, like Chicago and Pittsburg, full interstate freight rates. As a consequence the Interstate Commerce Commission never has had any opportunity to interfere with through ratings from interior points to the Orient via the Atlantic and the Suez canal.

"Another thing, the crews of those ships are all Singalese and Koreans, and the low wages paid to them figure in the low rates. So our competition with the foreign vessels on the Atlantic seaboard, with their cheap crews and generous subsidies, always has been a hard proposition.

Fight for Every Cargo.

"On the Pacific ocean also we are in competition with two strong lines, both subsidized by their governments, and we had to fight for every bit of freight. As long as we could cooperate with our transcontinental railroads, on the basis of the initial shipper making the through rate, we have been able to get a share of the business. But the new rule of the Interstate Commerce Commission makes it impossible to continue on that basis.

"Suppose a hundred pounds of machinery is being shipped from Kansas City to Hongkong on a through rate. The Interstate Commerce Commission requires the railroad hauling that freight from Kansas City to this port to publish its share of that through rate, and at the same time requires the railroad to publish its domestic rate for hauling from Kansas City to San Francisco or nearby points another hundred pounds of the same kind of machinery.

"Naturally the railroads decline to do that. Anyone can see what the result ultimately would be. If the railroad's portion of a through rate to the Orient should be found to be less than the railroad's domestic rate on the same kind of freight, domestic shippers immediately would clamor for the railroad's lower figures on export business.

"It is no wonder that the railroads refuse, but we, as the transpacific carriers, will be the sufferers. I cannot understand how it is that the government at Washington can have so little comprehension of the situation as to enact such laws."
